

**Office of
Ground Water and
Drinking Water**United States
Environmental Protection
AgencyOffice of Water
(4606)EPA 815-F-99-005
August 1999

Final Revisions to the Unregulated Contaminant Monitoring Regulation

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EPA has revised the Unregulated Contaminant Monitoring Rule (UCMR), as required by the 1996 Amendments to the Safe Drinking Water Act. The data generated by the new UCMR will be used to evaluate and prioritize contaminants on the Drinking Water Contaminant Candidate List, a list of contaminants EPA is considering for possible new drinking water standards. This data will help to ensure that future decisions on drinking water standards are based on sound science.

The new rule includes:

- A new list of contaminants for which public water systems must monitor;
- Analytical methods for some of these contaminants;
- Requirements for all large public water systems (PWS), and a representative sample of small PWS, to monitor for those contaminants on the list for which methods have been promulgated;
- Requirements to submit the monitoring data to EPA and the States for inclusion in the National Drinking Water Contaminant Occurrence Database; and
- Requirements to notify consumers of the results of monitoring.

The UCMR Monitoring List (see [Table 1](#), below) includes all thirty-four contaminants in the Contaminant Candidate List Occurrence Priorities column and two radionuclides that emerged during regulation development. The UCMR Monitoring List is comprised of three separate lists based on analytical methods readiness and current contaminant occurrence data: List 1 for Assessment Monitoring, List 2 for Screening Survey and List 3 for Pre-Screen Testing.

The Safe Drinking Water Act, as amended in 1996, requires EPA to limit monitoring requirements to 30 contaminants in any 5-year cycle. Since many of the contaminants still have analytical methods under development, the success of the methods

development efforts will dictate which 30 will be monitored in the 5-year cycle. While the UCMR Monitoring List has 36 contaminants on it, the regulation will only require monitoring for the 12 contaminants on List 1, beginning in 2001.

List 1 – Assessment Monitoring

List 1 includes twelve organic contaminants for which analytical methods exist or will soon be established. EPA has information on the their occurrence in some PWS, but not a national estimate of their extent of occurrence. Monitoring for List 1 contaminants at PWS is the specific action resulting from this rule.

Monitoring of List 1 (referred to as Assessment Monitoring) contaminants will occur at 2,800 large PWS and a representative sample of 800 (out of 66,000) small PWS. Transient water systems are not required to monitor. The monitoring results from these systems will be used to estimate national occurrence of the 12 organic contaminants on List 1. The statistically-derived 800 small systems will be selected at random from all small systems. Each State will have a number of systems allocated to it, based on population served, water source and small system size.

Surface water systems will monitor quarterly for one year and ground water systems will monitor twice in one year. Assessment Monitoring must be done within the three years of 2001 to 2003, which will allow coordination with the three-year compliance (for regulated contaminants) monitoring cycle. One of these quarterly or semiannual sampling events must occur in the most vulnerable period of May through July, or an alternate vulnerable period designated by the State, to ensure monitoring of higher contaminant concentrations.

SDWA requires EPA to pay for the reasonable testing costs for the representative sample of small systems. The estimated average annual cost for monitoring List 1 contaminants is \$8.4 million, of which the average annual cost of the representative sample to EPA is \$2.0 million. The average costs to individual systems required to monitor are: small systems serving 10,000 or fewer persons, \$21; and large systems serving more than 10,000 persons, \$1,730.

List 2 – Screening Surveys

List 2 contaminants are those for which analytical methods are under development and for which EPA has less occurrence data than the contaminants on List 1. This list includes 14 organic chemicals, one inorganic chemical and one microorganism. Monitoring for List 2 (referred to as Screening Survey) contaminants will occur after additional rulemaking to specify their analytical methods and monitoring requirements. The monitoring program will be the same as that for List 1, but only for a randomly selected set of 300 large and small systems. Any occurrence of a List 2 contaminant may indicate that the contaminant should be moved to List 1 for more extensive

national monitoring.

List 3 – Pre-Screen Testing

List 3 contaminants include seven microorganisms known to have health effects and one inorganic chemical. These contaminants have newly emerged as drinking water concerns and, in most cases, only have methods in an early stage of development. Monitoring of List 3 (referred to as Pre-Screen Testing) contaminants will be performed only after future rulemaking specifies methods to determine whether a listed contaminant occurs in sufficient frequency in the most vulnerable systems or sampling locations to warrant its being included in future Assessment Monitoring or Screening Surveys. EPA will also be evaluating the method performance for List 3 contaminants. EPA will select up to 200 large and small systems from State nominations of systems most vulnerable to List 3 contaminants. Because these methods are expected to be expensive since they will not have been refined, the monitoring program will likely be implemented on a semiannual basis.

The use of this tiered approach for implementing the three monitoring lists provides the maximum capability to monitor up to the statutory limit of no more than 30 contaminants in any five-year monitoring cycle. Therefore, as List 3 contaminants are found to occur in public water systems, they may move up to List 2, and likewise, List 2 contaminants may move up to List 1, in 2004, when the UCMR is revised again. The law requires that EPA publish a new contaminant monitoring list every five years.

State-EPA Implementation Partnership

SDWA provides for State Monitoring Plans for small systems included in the national representative sample. The rule provides the opportunity for States to work with these small systems to ensure the highest data quality. This opportunity includes establishing a Memorandum of Agreement between the State and EPA for States to accept or modify the initial monitoring plan, determine an alternate vulnerable monitoring time, modify the timing of monitoring to coordinate with compliance monitoring, identify alternate sampling points, notify systems of monitoring responsibilities, provide instructions to small systems, participate in Screening Survey for List 2 and Pre-Screen Testing for List 3, and provide additional locational information for systems.

Table 1. UCMR Monitoring List

LIST 1 Assessment Monitoring of Contaminants with Available Methods	LIST 2 Screening Survey of Contaminants Projected to have Methods by Date of Program Implementation	LIST 3 Pre-Screen Testing of Contaminants Needing Research on Methods
(1) 2,4-dinitrotoluene (2) 2,6-dinitrotoluene (3) DCPA mono acid (4) DCPA di acid (5) 4,4'-DDE (6) EPTC (7) Molinate (8) MTBE (9) Nitrobenzene (10) Terbacil (11) Acetochlor (12) Perchlorate	(13) Diuron (14) Linuron (15) Prometon (16) 2,4,6-trichlorophenol (17) 2,4-dichlorophenol (18) 2,4-dinitrophenol (19) 2-methyl-1-phenol (20) Alachlor ESA (21) 1,2-diphenylhydrazine (22) Diazinon (23) Disulfoton (24) Fonofos (25) Terbufos (26) Aeromonas Hydrophila (27) Polonium-210 (28) RDX	(29) Algae and toxins (30) Echoviruses (31) Cocksackieviruses (32) Helicobacter pylori (33) Microsporidia (34) Caliciviruses (35) Adenoviruses (36) Lead-210

Other Information

For general information on the Unregulated Contaminant Monitoring Regulation, contact the Safe Drinking Water Hotline, at (800) 426-4791. The Safe Drinking Water Hotline is open Monday through Friday, excluding Federal holidays, from 9:00 a.m. to 5:30 p.m. EST. For technical inquiries regarding the proposed regulations, contact Charles Job, Office of Ground Water and Drinking Water, U.S. Environmental Protection Agency (Mailcode 4607), 401 M Street, SW, Washington DC, 20460. E-mail: job.charles@epa.gov


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